## **CLAIMS**

## What is claimed is:

- 1. A bispecific antibody that binds TRAIL receptor 1 and TRAIL receptor 2.
- 2. A bispecific antibody of claim 1, wherein the antibody is a monoclonal antibody.
- 3. A bispecific antibody of claim 1, wherein the antibody induces death in a target cell selected from the group consisting of a cancer cell and a virally-infected cell.
- 4. A bispecific antibody of claim 2, wherein the antibody induces death in a target cell selected from the group consisting of a cancer cell and a virally-infected cell.
- 5. A bispecific antibody of claim 3, wherein the target cell is a virally-infected cell.
- 6. A bispecific antibody of claim 4, wherein the target cell is a virally-infected cell.
- 7. A bispecific antibody of claim 3, wherein the target cell is a cancer cell.
- 8. A bispecific antibody of claim 4, wherein the target cell is a cancer cell.
- 9. A bispecific antibody of claim 7, wherein the cancer cell is selected from the group consisting of leukemia, lymphoma, melanoma, breast carcinoma, colon carcinoma, and colorectal cancer cells.
- 10. A bispecific antibody of claim 8, wherein the cancer cell is selected from the group consisting of leukemia, lymphoma, melanoma, breast carcinoma, colon carcinoma, and colorectal cancer cells.
- 11. A method for killing cancer cells, comprising contacting cancer cells with a bispecific antibody of claim 7.
- 12. A method of claim 11, wherein the cancer cells are selected from the group consisting of leukemia, lymphoma, melanoma, breast carcinoma, colon carcinoma, and colorectal cancer cells.
- 13. A method for killing cancer cells, comprising contacting cancer cells with a bispecific antibody of claim 8.

- 14. A method of claim 13, wherein the cancer cells are selected from the group consisting of leukemia, lymphoma, melanoma, breast carcinoma, colon carcinoma, and colorectal cancer cells.
- 15. A method of claim 13, wherein the antibody comprises at least one Fc region.
- 16. A method of claim 13, wherein the antibody is a whole antibody.
- 17. A method for killing virally infected cells, comprising contacting virally infected cells with a bispecific antibody of claim 5.
- 18. A method for killing virally infected cells, comprising contacting virally infected cells with a bispecific antibody of claim 6.
- 19. A method of claim 17, wherein the cells are infected with human immunodeficiency virus (HIV).
- 20. A method of claim 18, wherein the cells are infected with human immunodeficiency virus (HIV).
- 21. A method of claim 18, wherein the antibody comprises at least one Fc region.
- 22. A method of claim 18, wherein the antibody is a whole antibody.
- 23. A method for killing cancer cells *in vivo*, comprising administering a bispecific antibody of claim 7 to a human who has cancer.
- 24. A method of claim 23, wherein the cancer cells are selected from the group consisting of leukemia, lymphoma, melanoma, breast carcinoma, colon carcinoma, and colorectal cancer cells.
- 25. A method for killing cancer cells *in vivo*, comprising administering a bispecific antibody of claim 8 to a human who has cancer.

- 26. A method of claim 25, wherein the cancer cells are selected from the group consisting of leukemia, lymphoma, melanoma, breast carcinoma, colon carcinoma, and colorectal cancer cells.
- 27. A method of claim 25, wherein the antibody comprises at least one Fc region.
- 28. A method of claim 25, wherein the antibody is a whole antibody.
- 29. A method of claim 23, wherein the antibody is co-administered with one or more additional anti-cancer agents.
- 30. A method for killing virally infected cells *in vi*vo, comprising administering a bispecific antibody of claim 5 to a human who is infected with a virus.
- 31. A method for killing virally infected cells *in vi*vo, comprising administering a bispecific antibody of claim 6 to a human who is infected with a virus.
- 32. A method of claim 30, wherein the virus is human immunodeficiency virus.
- 33. A method of claim 31, wherein the virus is human immunodeficiency virus.
- 34. A method of claim 31, wherein the antibody comprises at least one Fc region.
- 35. A method of claim 31, wherein the antibody is a whole antibody.
- 36. A method of claim 30, wherein the antibody is co-administered with one or more additional anti-viral agents.